



#5

SEQUENCE LISTING

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<120> Novel Fibroblast Growth Factor and Nucleic Acids  
Encoding Same

<130> 15966-557 CIP2

<140> 09/817,814

<141> 2001-03-26

<150> 09/609,543

<151> 2000-07-03

<150> 09/494,585

<151> 2000-01-31

<150> 60/145,899

<151> 1999-07-27

<160> 25

<170> PatentIn Ver. 2.1

<210> 1

<211> 633

<212> DNA

<213> Homo sapiens

<400> 1

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aggagcgcgg cggagcggag cgcgcgcggc gggccggggg ctgctgcagct ggcgcacctg 180  
cacggcatcc tgcgcgcggc gcagctctat tgccgcaccg gcttccacct gcagatcctg 240  
cccgcaggca gcgtgcaggc caccgcggcag gaccacagcc tcttcggtat cttggaattc 300  
atcagtgtgg cagtgggact ggtcagtatt agaggtgtgg acagtggctc ctatcttgga 360  
atgaatgaca aaggagaact ctatggatca gagaaactta cttccgaatg catctttagg 420  
gagcagtttg aagagaactg gtataacacc tattcatcta acatatataa acatggagac 480

actggccgca ggtattttgt ggcacttaac aaagacggaa ctccaagaga tggcgccagg 540  
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<210> 2

<211> 211

<212> PRT

<213> Homo sapiens

<400> 2

Met Ala Pro Leu Ala Glu Val Gly Gly Phe Leu Gly Gly Leu Glu Gly  
 1 5 10 15

Leu Gly Gln Gln Val Gly Ser His Phe Leu Leu Pro Pro Ala Gly Glu  
 20 25 30

Arg Pro Pro Leu Leu Gly Glu Arg Arg Ser Ala Ala Glu Arg Ser Ala  
 35 40 45

Arg Gly Gly Pro Gly Ala Ala Gln Leu Ala His Leu His Gly Ile Leu  
 50 55 60

Arg Arg Arg Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln Ile Leu  
 65 70 75 80

Pro Asp Gly Ser Val Gln Gly Thr Arg Gln Asp His Ser Leu Phe Gly  
 85 90 95

Ile Leu Glu Phe Ile Ser Val Ala Val Gly Leu Val Ser Ile Arg Gly  
 100 105 110

Val Asp Ser Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu Leu Tyr  
 115 120 125

Gly Ser Glu Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu  
 130 135 140

Glu Asn Trp Tyr Asn Thr Tyr Ser Ser Asn Ile Tyr Lys His Gly Asp  
 145 150 155 160

Thr Gly Arg Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg  
 165 170 175

Asp Gly Ala Arg Ser Lys Arg His Gln Lys Phe Thr His Phe Leu Pro  
 180 185 190

Arg Pro Val Asp Pro Glu Arg Val Pro Glu Leu Tyr Lys Asp Leu Leu

195

200

205

Met Tyr Thr

210

&lt;210&gt; 3

&lt;211&gt; 38

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:FGF-CX Forward  
Primer

&lt;400&gt; 3

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38

&lt;210&gt; 4

&lt;211&gt; 34

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:FGF-CX Reverse  
Primer

&lt;400&gt; 4

ctcgtcctcg agagtgtaca tcagtaggtc cttg

34

&lt;210&gt; 5

&lt;211&gt; 424

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5

tggatcattt aaaggggatt ctcaggcgga ggcagctata ctgcaggact ggatttcact 60  
 tagaaatctt cccaatggt actatccagg gaaccaggaa agaccacagc cgatttggca 120  
 ttctggaatt tatcagtata gcagtgggcc tggtcagcat tcgaggcgtg gacagtggac 180  
 tctacctcgg gatgaatgag aagggggagc tgtatggatc agaaaaacta acccaagagt 240  
 gtgtattcag agaacagttc gaagaaaact ggtataatac gtactcgtca aacctatata 300  
 agcacgtgga cactggaagg cgatactatg ttgcattaaa taaagatggg accccgagag 360  
 aagggactag gactaaacgg caccagaaat tcacacattt tttacctaga ccagtggacc 420  
 ccga 424

<210> 6  
 <211> 288  
 <212> DNA  
 <213> Homo sapiens

<400> 6  
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 ggtggaagcc ggtgcggaag tagagctgcc ggcgcgagc atgccgtgca ggtgcgccag 120  
 ctgcgagcc cccggccgc cgcgcgcgct ccgtccgcc gcgctcctgc gctcgccag 180  
 cagcgcgcc cgctccccgg caggaggcaa caggaaatgc gaaccacct gctggcccaa 240  
 gccctccagg ccgccagaa agccccgac ttcggctaag ggagccat 288

<210> 7  
 <211> 255  
 <212> DNA  
 <213> Homo sapiens

<400> 7  
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 taagaaatgt gtaaatttct gatgcctctt ggacctggcg ccatctcttg gagttccgtc 120  
 tttgttaagt gccacaaaat acctgcggcc agtgtctcca tgtttatata tgtagatga 180  
 ataggtgtta taccagttct cttcaaactg ctccctaaag atgcattcgg aagtaagttt 240  
 ctctgaaag agaga 255

<210> 8  
 <211> 106  
 <212> DNA  
 <213> Homo sapiens

<400> 8  
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 taatactgac cagtcccact gccacactga tgaattccaa gatacc 106

<210> 9  
 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<400> 9  
 Met Ala Pro Leu Gly Glu Val Gly Asn Tyr Phe Gly Val Gln Asp Ala  
 1 5 10 15  
 Val Pro Phe Gly Asn Val Pro Val Leu Pro Val Asp Ser Pro Val Leu  
 20 25 30

Leu Ser Asp His Leu Gly Gln Ser Glu Ala Gly Gly Leu Pro Arg Gly  
 35 40 45  
 Pro Ala Val Thr Asp Leu Asp His Leu Lys Gly Ile Leu Arg Arg Arg  
 50 55 60  
 Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly  
 65 70 75 80  
 Thr Ile Gln Gly Thr Arg Lys Asp His Ser Arg Phe Gly Ile Leu Glu  
 85 90 95  
 Phe Ile Ser Ile Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser  
 100 105 110  
 Gly Leu Tyr Leu Gly Met Asn Glu Lys Gly Glu Leu Tyr Gly Ser Glu  
 115 120 125  
 Lys Leu Thr Gln Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp  
 130 135 140  
 Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg  
 145 150 155 160  
 Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr  
 165 170 175  
 Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val  
 180 185 190  
 Asp Pro Asp Lys Val Pro Glu Leu Tyr Lys Asp Ile Leu  
 195 200 205

<210> 10

<211> 205

<212> PRT

<213> Mus musculus

<400> 10

Met Ala Pro Leu Gly Glu Val Gly Ser Tyr Phe Gly Val Gln Asp Ala  
 1 5 10 15  
 Val Pro Phe Gly Asn Val Pro Val Leu Pro Val Asp Ser Pro Val Leu  
 20 25 30  
 Leu Asn Asp His Leu Gly Gln Ser Glu Ala Gly Gly Leu Pro Arg Gly  
 35 40 45



50	55	60
Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly		
65	70	75 80
Thr Ile Gln Gly Thr Arg Lys Asp His Ser Arg Phe Gly Ile Leu Glu		
	85	90 95
Phe Ile Ser Ile Ala Val Gly Leu Val Ser Ile Arg Gly Val Asp Ser		
	100	105 110
Gly Leu Tyr Leu Gly Met Asn Glu Lys Gly Glu Leu Tyr Gly Ser Glu		
	115	120 125
Lys Leu Thr Gln Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp		
	130	135 140
Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Val Asp Thr Gly Arg		
	145	150 155 160
Arg Tyr Tyr Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Glu Gly Thr		
	165	170 175
Arg Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val		
	180	185 190
Asp Pro Asp Lys Val Pro Glu Leu Tyr Lys Asp Ile Leu		
	195	200 205
<210> 12		
<211> 208		
<212> PRT		
<213> Xenopus laevis		
<400> 12		
Met Ala Pro Leu Ala Asp Val Gly Thr Phe Leu Gly Gly Tyr Asp Ala		
1	5	10 15
Leu Gly Gln Val Gly Ser His Phe Leu Leu Pro Pro Ala Lys Asp Ser		
	20	25 30
Pro Leu Leu Phe Asn Asp Pro Leu Ala Gln Ser Glu Arg Leu Ser Arg		
	35	40 45
Ser Ala Pro Ser Asp Leu Ser His Leu Gln Gly Ile Leu Arg Arg Arg		
	50	55 60

Gln Leu Tyr Cys Arg Thr Gly Phe His Leu Gln Ile Leu Pro Asp Gly  
 65 70 75 80  
 Asn Val Gln Gly Thr Arg Gln Asp His Ser Arg Phe Gly Ile Leu Glu  
 85 90 95  
 Phe Ile Ser Val Ala Ile Gly Leu Val Ser Ile Arg Gly Val Asp Thr  
 100 105 110  
 Gly Leu Tyr Leu Gly Met Asn Asp Lys Gly Glu Leu Phe Gly Ser Glu  
 115 120 125  
 Lys Leu Thr Ser Glu Cys Ile Phe Arg Glu Gln Phe Glu Glu Asn Trp  
 130 135 140  
 Tyr Asn Thr Tyr Ser Ser Asn Leu Tyr Lys His Gly Asp Ser Gly Arg  
 145 150 155 160  
 Arg Tyr Phe Val Ala Leu Asn Lys Asp Gly Thr Pro Arg Asp Gly Thr  
 165 170 175  
 Arg Ala Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val  
 180 185 190  
 Asp Pro Glu Lys Val Pro Glu Leu Tyr Lys Asp Leu Met Gly Tyr Ser  
 195 200 205

<210> 13

<211> 26

<212> PRT

<213> Homo sapiens

<400> 13

Gln Asp His Ser Leu Phe Gly Ile Leu Glu Phe Ile Ser Val Ala Val  
 1 5 10 15

Gly Leu Val Ser Ile Arg Gly Val Asp Ser  
 20 25

<210> 14

<211> 30

<212> DNA

<213> Artificial Sequence



<220>

<223> Description of Artificial Sequence:pSec-V5-His  
Forward Primer

<400> 14

ctcgtcctcg agggtaagcc tatccctaac

30

<210> 15

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:pSec-V5-His  
Reverse Primer

<400> 15

ctcgtcgggc ccctgatcag cgggtttaa c

31

<210> 16

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Oligonucleotide  
linker

<400> 16

catggtcagc ctac

14

<210> 17

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Oligonucleotide  
linker

<400> 17

tcgagtaggc tgac

14

<210> 18  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Ag81b Forward  
Primer

<400> 18  
ggaccacagc ctcttcggtgta

20

<210> 19  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Ag81b Reverse  
Primer

<400> 19  
tgtccacacc tctaatactg accag

25

<210> 20  
<211> 26  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Ag81b Probe  
Primer

<400> 20  
cccactgccca cactgatgaa ttccaa

26

<210> 21  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Ag81 Forward  
Primer

<400> 21  
aggcagaagc gggagataga t 21

<210> 22  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Ag81 Reverse  
Primer

<400> 22  
agcagcttta cctcattcac aatg 24

<210> 23  
<211> 28  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Ag81 Probe  
Primer

<400> 23  
ccatctacat ccaccaccag ttgcagaa 28

<210> 24  
<211> 207  
<212> PRT  
<213> Homo sapiens

<400> 24  
Met Ala Glu Val Gly Gly Val Phe Ala Ser Leu Asp Trp Asp Leu His  
1 5 10 15

Gly Phe Ser Ser Ser Leu Gly Asn Val Pro Leu Ala Asp Ser Pro Gly  
20 25 30

Phe Leu Asn Glu Arg Leu Gly Gln Ile Glu Gly Lys Leu Gln Arg Gly  
35 40 45

Ser Pro Thr Asp Phe Ala His Leu Lys Gly Ile Leu Arg Arg Arg Gln  
50 55 60

Leu Tyr Cys Arg Thr Gly Phe His Leu Glu Ile Phe Pro Asn Gly Thr  
 65 70 75 80  
 Val His Gly Thr Arg His Asp His Ser Arg Phe Gly Ile Leu Glu Phe  
 85 90 95  
 Ile Ser Leu Ala Val Gly Leu Ile Ser Ile Arg Gly Val Asp Ser Gly  
 100 105 110  
 Leu Tyr Leu Gly Met Asn Glu Arg Gly Glu Leu Tyr Gly Ser Lys Lys  
 115 120 125  
 Leu Thr Arg Glu Cys Val Phe Arg Glu Gln Phe Glu Glu Asn Trp Tyr  
 130 135 140  
 Asn Thr Tyr Ala Ser Thr Leu Tyr Lys His Ser Asp Ser Glu Arg Gln  
 145 150 155 160  
 Tyr Tyr Val Ala Leu Asn Lys Asp Gly Ser Pro Arg Glu Gly Tyr Arg  
 165 170 175  
 Thr Lys Arg His Gln Lys Phe Thr His Phe Leu Pro Arg Pro Val Asp  
 180 185 190  
 Pro Ser Lys Leu Pro Ser Met Ser Arg Asp Leu Phe His Tyr Arg  
 195 200 205

<210> 25  
 <211> 814  
 <212> DNA  
 <213> Homo sapiens

<400> 25  
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 gtaaccgggc cttaactttt tgcgctcgtt ttgctataat ttttctctat ccacctccat 120  
 cccacccccca caacactctt tactgggggg gtctttttgt ttccggatct cccctccat 180  
 ggctccctta gccgaagtcg ggggctttct gggcggcctg gagggcttgg gccagcaggt 240  
 gggttcgcat ttctgttgct ctctgcccgg ggagcggccg ccgctgctgg gcgagcgcag 300  
 gagegcggcg gageggagcg cgcgcggcgg gccgggggct gcgcagctgg cgcacctgca 360  
 cggcatcctg cgccgccggc agctctattg ccgcaccggc ttccacctgc agatcctgcc 420  
 cgacggcagc gtgcagggca cccggcagga ccacagcctc ttcggtatct tggaattcat 480  
 cagtgtggca gtgggactgg tcagtattag aggtgtggac agtggctctt atcttggaa 540  
 gaatgacaaa ggagaactct atggatcaga gaaacttact tccgaatgca tctttaggga 600  
 gcagtttgaa gagaactggt ataacaoccta ttcattctaac atatataaac atggagacac 660  
 tggccgcagg tattttgtgg cacttaacaa agacggaact ccaagagatg gcgccaggtc 720  
 caagaggcat cagaaattta cacatttctt acctagacca gtggatccag aaagagttcc 780  
 agaattgtac aaggacctac tgatgtacac ttga 814

*(The page contains faint, illegible markings or bleed-through from the reverse side.)*